# Data Sheet

## iMOTION™ motor control IC for single motor drive

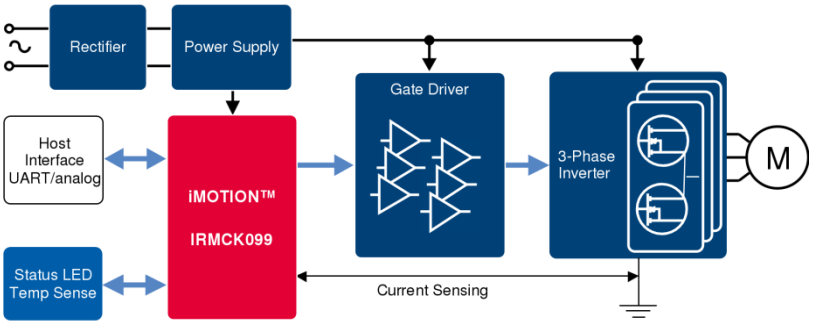
## Quality Requirement Category: Industry

### Features

- Ready-to-use solution for high efficiency variable speed drives
- Pre-programmed motion control engine (MCE)
- Sensor less field oriented control (FOC) of permanent magnet synchronous motors (PMSM)
- Support for up to 31 sets of motor parameters
- Current measurement based on single or leg shunt
- Integrated oscillator, A/D converter, OP amps & comparators
- Integrated protection features
- Package: 5x5mm² QFN-32

### Applications

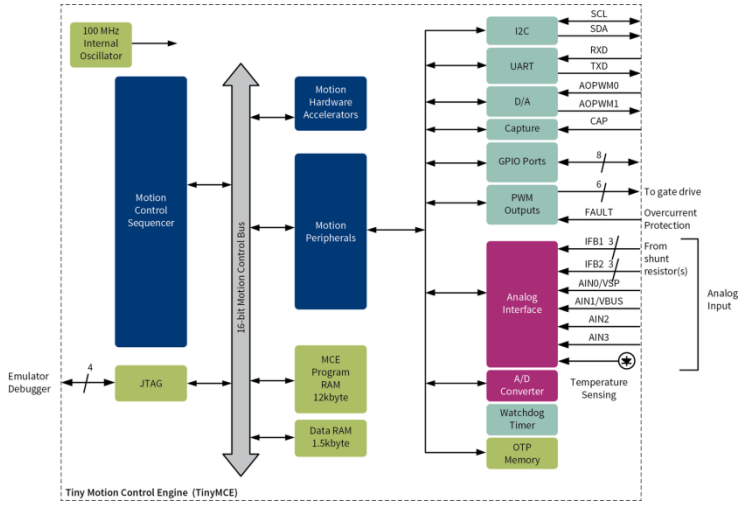
- Pumps & fans
- Drones, multicopters
- Home appliances
- Any other PMSM drive




### Description

The IRMCK099 combines the iMOTION™ motor control engine (MCE) with all peripherals required to realize a complete variable speed drive. The IRMCK099 does not require algorithm programming and can be used in combination with a µIPM™ or a discrete power stage.

The MCE implements sensor less field oriented control using single or leg shunt current feedback and uses space vector PWM with sinusoidal signals to provide highest energy efficiency.



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